trusion of the orbital tissues; a hard brawny tissue still continued to fill the orbit. A few months later the second eye became similarly affected, and was lost in the same way. The general condition of the patient improved and the thyroid swelling diminished under use of thyroid extract.

W. F. AIKEN (Savannah) reports a case of exophthalmic goitre following ether anæsthesia. Marked prominence of the eyeballs was observed about the time that consciousness was abolished, and this remained, with other characteristic symptoms of the disease, when the patient was seen nine months later. High hyperopia with astigmatism was corrected, and although no medical treatment seemed to benefit her perceptibly, she gradually improved until, after six or seven years, she was quite well. A hemorrhage occurring in the fourth ventricle is suggested as the probable cause of the attack.—*Transactions of American Ophthalmological Society*, 1897.

The Mechanism of Accommodation.—The question of the mechanism of the accommodation is again being actively discussed and ingenious experiments have been devised for its solution. There are two theories. First, Helmholtz's well-known view is that the contraction of the ciliary muscle relaxes the zonula, permitting the lens to become more convex by virtue of its own elasticity. The second theory especially maintained by Schön and Tscherning ascribes the same result on the lens to a directly opposite effect of the ciliary muscle on the zonula, holding that it exercises traction upon the zonula which, indeed, serves it for a tendon of attachment. The zonula is thus rendered tense and the equator of the lens drawn backward. Now, inasmuch as the vitreous plays the part of an elastic cushion or fulcrum, the lens being pushed against it becomes curved, just as a stick when bent over the knee. The centre of the anterior surface of the lens becomes more convex than the peripheral portion—*i. e.*, the edge is left or rendered hyperopic relatively to the centre.

That this change is a fact, independent of theory, is admittedly proved by Tscherning's optometric and phakoscopic examinations. But this does not necessarily prove the truth of the tension theory. It is also consistent with the Helmholtz view, especially if it be remembered that the lens is not homogeneous, but that it possesses at its centre a differentiated nucleus—*i. e.*, the hypothesis does not require the anterior surface of the lens to become exactly spherical.

But that relaxation of the zonula actually does take place with accommodation is proved by the "accommodative iridodonesis," by subjective (entoptic) phenomena, and by objective measurements. Moreover, the same has been shown anatomically by microscopic examinations of the contracted ciliary muscles in birds. Entoptic examination of the spectrum of the lens shows several punctate opacities. Hess observed that these opacities were shifted uniformly during accommodation. The cause of this is a falling of the lens in consequence of relaxation of the zonula continuing after the lens has reached its maximum of curvature. In different positions of the head the entoptic appearances always corresponded to such falling of the lens. This is inconsistent with the tension theory.

Again, if two threads are stretched in a horizontal plane, one at the distance of the punctum proximum, the other at one metre, the gravitation of

the leus duriag accommodatiun should affect the image of the nearer thread upon the retina more than the farther, on account of parallax; and this is fonnd to be the case. When the accommodation is relaxed the images of the two threads coiacide; during accommodatioa they separate, the amouat of separatioa heiag a measare of the movement of the leus. Such movement has been fouad to correspoad to one-half millimetre in natural accommodation aad oae millimetre after instillation of eseria.

Finally, the movemcnt of the lens has bcea objectively measared by exnmination of the rcflexes and fonad to agree with the subjective determinations.

By the iastillation of ntropia and eserin into the eyes of birds it is possible to fix the ciliary muscle in n coadition of paralysis or spasm. Microscopic examination of such eyes leaves no donbt that contraction of the muscle results in relaxation of the zonnla.—L. HEINE, in *Fortschritte der Medicin*, 1897, No. 23.

Electrolysis for Trachoma.—S. SNELL (Sheffield) has found this method of benefit in chronic cases, although he offers it as an alternntive more than as a substitute for other methods. The negative pole is applied to the cheek nnd the positive to the everted surface of the lid; the latter has n curved, flatteaed platiaum electrode which is passed over the conjunctivnl surface. The strengtb of the current used is seldom more than 3 milliampères and should not exceed 5 milliampères. A whitish, frothy trail follows the platinum point. In spite of cocain the npplication is painful, bnt the pain soon ceases. It may bo repeated every few days.—*Ophthalmic Review*, 1897, page 202.

Chronic Membranous Conjunctivitis.—H. HARLAN (Baltimore) reports a case in a girl, aged tea years, in whose left eye there was a growth from under the upper lid, fibrous in character nnd extending over most of the lid, consistiag of nn orgnnized membrane, thick, yellowish-white, easily detached, bat leaving n bleeding surface behind. It bad all the mncroscopic appearaaces of diphthcritic membraae as scen in the throat, but no diphtheria bacilli were found.

The history was that the eye had heea about the same for six years nnder the care of a number of physicians. The coraea had sloaghed years before. Powdered jequirity dusted over the lid provoked a violeat inflammation, with great swelling of the lids, some fever, and three days later sore-throat, with the formatioa of patches on the tonsil and fauces aad the appearance of diphtheria bacilli iu tbis membrane. Under antitoxin she promptly recovered from the neute trouble, but the chronic membrane coatiaaed.—*Journal of Eye, Ear, and Throat Diseases*, October, 1897.

L. HOWE (Buffalo) exhibited before the American Ophtbalmological Society a similar case in a boy, aged eight years, in whom the membrane had lasted for eighteea moaths, unaffected hy treatmeat. The sight remained good. A sister of this boy had heen similarly nffected. Each of them had an acute exacerbation, and nt that time the sister's eye was lost. Repeated bacteriological examinntions hnd failed to show diphtheria bacilli, except during the acnte tronble, when the throat was nffected and the bacilli were